

Remarks

A. Overview

The present application includes claims 1-24. With this Amendment Applicants have amended claims 1, 7, 11, 12, 15, and 23, and have canceled claims 16-20 without prejudice. As such, claims 1-15 and 21-24 are currently pending in this application.

Applicants acknowledge with appreciation the Examiner's indication that claim 12 would be allowable if rewritten to overcome the rejection under 25 U.S.C. §112.

B. Objection to Drawings

The Examiner objected to the drawings stating that the "set screw" and the "notch" of claims 7 and 12 are not shown in the drawings. Applicants submit that the "set screw" is shown in Fig. 17 and indicated by reference numeral 257. With this Amendment, Applicants have amended claims 7 and 12 by replacing the phrase "a notch" with "an opening" in order to more precisely describe this feature as shown in the drawing figures. Applicants submit that Fig. 17 shows an opening 259 configured to receive set screw 257.

Accordingly, Applicants submit that the drawings currently at least show every feature of the invention specified in the claims. As such, Applicants request the Examiner remove the objection to the drawings.

C. Objections to the Claims

The Examiner objected to informalities in claim 1 and claim 15. In particular, the Examiner objected to claim 1 by stating that "with" should be inserted into claim 1 after the word "relationship." Applicants respectfully disagree. Claim 1 states "...the interior surface being configured to receive in abutting relationship the sleeve of a caster...." Applicants submit, that it is clear from claim 1 as currently presented that the interior surface of the caster mounting tube receives the sleeve of the caster in an abutting relationship.

The Examiner objected to claim 15 by stating that a period "." should be inserted after the word "machine." Applicants have amended claim 15 accordingly.

Applicants respectfully request that the Examiner withdraw the objections of claims 1 and 15.

D. Claim Rejections under §112

Claims 1-6, 8-11, 13-15, 23, and 24 were rejected under 35 U.S.C §112, second paragraph as being indefinite. In particular, the Examiner objected to certain portions of claims 1, 11, 15, and 23.

Referring to claim 1, the Examiner asserts that the limitation “the exterior surface” lacks antecedent basis. Applicants respectfully disagree with the Examiner’s assertion of insufficient antecedent basis. More particularly, claim 1 at line 7 clearly recites “an exterior surface.” Nevertheless, in order to expedite prosecution, Applicants have amended claim 1 at line 10 to clearly recite “a first exterior surface.”

Further referring to claim 1, the Examiner asserts that the limitation “the first external side wall” lacks antecedent basis. Again, applicants respectfully disagree with the Examiner’s assertion as a proper antecedent basis is provided in claim 1, at lines 9-10. Nevertheless, Applicants have amended the limitation to include the phrase “generally planar” before the word “first” and submit that there is clearly proper antecedent basis for “the generally planar first external side wall.”

Referring to claim 11, the Examiner asserts that the limitation “forming within the interior opening” is a process of making a product. Applicants respectfully submit that the step of “forming ... an opening having a ... round cross-sectional shape...” is a proper step for a method claim. The verb “forming” describes an action(s) to be taken during the method. Applicants fail to see how such a method step could be improper under 35 U.S.C. § 112. However, Applicants have amended claim 11 to recite the step of “removing material from the mounting tube such that at least a portion of the interior opening has a generally round cross-sectional shape....”

Referring to claim 15, the Examiner asserts that the limitation “the welding step” lacks antecedent basis. While Applicants disagree with this rejection, claim 15 has been nevertheless amended such that the limitation recites “the step of welding the mounting tube to the base frame with first and second welds located at opposite ends of the first side wall.”

Referring to claim 23, the Examiner asserts that the limitation “the cylindrical sleeves” lacks antecedent basis. Applicants have amended the limitation to delete the word “cylindrical” before the word “sleeves” and submit that there is proper antecedent basis for “the sleeves.”

The aforementioned amendments to claims 1, 11, 15, and 23 are concerned only with matters of form and do not affect the intended scope of protection. In response to these amendments, Applicants request the Examiner withdraw the rejection of claims 1-6, 8-11, 13-15, 23, and 24.

The Examiner rejected claim 7 under 35 U.S.C. §112, first paragraph, as based on a disclosure that is not enabling. In particular, the Examiner rejected the portion of claim 7 reciting “the plurality of casters each include a set screw to orient the caster and the caster mounting tubes are each formed to include a notch configured to receive one of the set screws.” Applicants have amended claim 7 to replace the phrase “a notch” with “an opening.” Applicants submit that “an opening” is clearly shown in the elected Figures 17-19. Accordingly, Applicants request that the Examiner withdraw the rejection of claim 7.

The Examiner rejected claim 12 under 35 U.S.C. §112, first paragraph, as based on a disclosure that is not enabling. In particular, the Examiner rejected “the plurality of casters each include a set screw to orient the caster and the caster mounting tubes are each formed to include a notch configured to receive one of the set screws.” Applicant submits that claim 12 does not include such a recitation. However, Applicants assume the Examiner is rejecting the portion of claim 12 which recites “wherein the caster includes a set screw to orient the caster, the method further comprising the step of forming a notch in the mounting tube to receive the set screw of the caster.” Applicants have amended claim 12 to replace the words “a notch” with the words “an opening.” Applicants submit that “an opening” is clearly shown in the elected Figures 17-19. Accordingly, Applicants request that the Examiner withdraw the rejection of claim 12.

It is noted that the amendments to claims 7 and 12 are concerned only with matters of form and do not affect the intended scope of protection.

E. Claim Rejections under §102

Claims 1-4, 8, 10, 21, and 22 were rejected under 35 U.S.C §102(b) as being anticipated by U.S. Patent No. 5,330,064 to Hall (“Hall Patent”). The rejected claims include independent claims 1 and 21 from which the remaining rejected claims depend.

The Hall Patent does not disclose, teach or suggest a patient support apparatus as recited in claim 1 comprising, “... a patient support coupled to the base frame, ... a plurality of caster mounting tubes, each mounting tube including a plurality of external side walls surrounding an opening ... the interior surface [of the external side walls] being

configured to receive in abutting relationship the sleeve of a caster....” As stated by the Applicants in the prior response, the Hall Patent at least does not disclose, teach, or suggest, a patient support surface as recited in claim 1, nor a caster mounting tube including an interior surface configured to receive in abutting relationship the sleeve of a caster.

The Examiner, referring to Figs. 1 and 2 of the Hall Patent, asserts that reference numeral 33 is a patient support.¹ However, referring to the text of the Hall Patent, reference numeral 33 is a top surface of a second frame member 32.² Applicants respectfully submit that the top surface of second frame member 32 is not configured for use as a patient support. As such, for this reason alone, it is respectfully submitted that claim 1 is not anticipated by the Hall Patent.

The Examiner, still referring to Figs 1 and 2 of the Hall Patent, asserts that reference numeral 54 is a caster rectangular sleeve and the reference numeral 44 is a caster mounting tube.³ Referring to the text of the Hall Patent, reference numeral 44 is an exterior support member and reference numeral 54 is an extension.⁴ The Examiner fails to point to the disclosure of the Hall Patent wherein the relationship between exterior support member 44 and extension 54 anticipate the limitations recited in claim 1, more particularly, that of “... the interior surface [of the external side walls of the caster mounting tube] being configured to receive in abutting relationship the sleeve of a caster....”

Referring to Figs. 2 and 3 of the Hall Patent, it is clear that upright 40 is positioned between extension 54 and exterior support member 44. Referring to the text of the Hall Patent, “upright 40 is inserted into exterior support member 44 from above, as viewed in FIG. 2. Then, extension 54 is inserted into the interior of upright 40 from below.”⁵ Applicants respectfully submit that an interior surface of exterior support member 44 does not receive in abutting relationship extension 54. As such, for this reason alone, it is respectfully submitted that claim 1 is not anticipated by the Hall Patent.

For at least these reasons, Applicants submit that the patient support apparatus as recited in independent claim 1 is patentable over the Hall Patent. Accordingly, Applicants submit that independent claim 1 is in condition for allowance.

Claims 2-4, 8, and 10 depend from claim 1 and are patentable over the Hall Patent at least for the reasons given above in connection with claim 1, and for the further

¹ Office Action, numbered paragraph 9.

² Hall Patent, col. 3, lines 51-53.

³ Office Action, numbered paragraph 9.

⁴ Hall Patent, col. 3, lines 56-62.

⁵ Hall Patent, col. 4, lines 58-62.

dependent limitations recited therein. It is noted that claim 10 has been rejected by the Examiner even though it has been apparently withdrawn from consideration. However, as stated in Applicants' previously filed Election of Species, it is respectfully submitted that claim 10 depends from generic claim 1. As such, it is respectfully submitted that claim 10 is proper for examination and is in condition for allowance. Accordingly, Applicants submit that claims 2-4, 8, and 10 are in condition for allowance.

The Hall Patent does not disclose, teach or suggest a patient support apparatus as recited in claim 21 comprising, "... a patient support coupled to the base frame ... a plurality of caster mounting tubes, each mounting tube having ... a plurality of external side walls including a generally planar first external side wall abutting the base frame, the mounting tube being connected to the base frame by welds located adjacent the first external side wall, wherein the first external side wall ... is formed to include a hole, the base frame is formed to include a hole, the hole in the base frame being aligned with the hole in the first external side wall, and both holes are located between the welds located adjacent the first external side wall."

Referring to Figs. 3 and 5 of the Hall Patent, frame members 28 and 32 and frame member 328 and 332 do not include a hole. Not only do the respective frame members not include a hole, the respective frame members do not include a hole which is "aligned with the hole in the first external side wall, and both holes are located between the welds located adjacent the first external side wall."

For at least these reasons, Applicants submit that the patient support apparatus as recited in independent claim 21 is patentable over the Hall Patent. Accordingly, Applicants submit that independent claim 21 is in condition for allowance.

Claim 22 depends from claim 21 and is patentable over the Hall Patent at least for the reasons given above in connection with claim 21 and for the further dependent limitations recited therein. Accordingly, Applicants submit that claim 22 is in condition for allowance.

F. Claim Rejections under §103

The Examiner rejected independent claim 7 under 35 U.S.C. 103(a) as being unpatentable over the Hall Patent in view of US Patent No. 5,056,231 to Alusick et al ("Alusick Patent"). The Hall Patent, neither alone nor in combination with Alusick, discloses, teaches, or suggests the patient support recited in independent claim 7 comprising

“... a patient support ... a plurality of caster mounting tubes ... the plurality of casters each include a set screw to orient the caster and the caster mounting tubes are each formed to include an opening configured to receive one of the set screws.”

The Hall Patent fails to teach a patient support as recited in claim 7. The Examiner again asserts that reference numeral 33 is a patient support.⁶ However, as stated before reference numeral 33 is a top surface of a second frame member 32. Applicants respectfully submit that the top surface of second frame member 32 is not configured for use as a patient support. Further, there is no motivation found in the Hall Patent to utilize top surface 33 as a patient support. In addition, the Alusick Patent does not overcome this deficiency of the Hall Patent. As such, for this reason alone, it is respectfully submitted that claim 7 is patentable over the Hall Patent, alone or in combination with the Alusick Patent.

The Alusick Patent is directed to AN APPARATUS FOR LOCKING WHEEL UNIT IN AUTOMOTIVE WHEEL ALIGNMENT SYSTEM. The Alusick Patent discloses a wheel alignment system 10 including a rim clamp 22 secured to a head unit 18. A spindle 80 of rim clamp 22 is received into spindle receiving cavity 92 of a spindle clamp 28 of head unit 18. A groove 82 of spindle 80 receives a spring plunger 88 of spring clamp 28. Spindle 80 is free to rotate with spring plunger 88 positioned in groove 82. A set screw 96 is received in a groove 84 of spindle 80. When set screw 96 is tightened into groove 84 spindle 80 is not free to rotate.

The Examiner relies on the Alusick Patent for teaching the “use of a set screw 8 into a notch 82 of a spindle 80” apparently for the proposition that one of skilled in the art looking at the Hall patent would use a set screw engaging a notch instead of using a bolt through holes. Applicants were unable to locate a “set screw 8” disclosed in the Alusick Patent. However, it is assumed that the Examiner either meant “spring plunger 88” which is received in “groove 82” or “set screw 96” which is received in “groove 84”.

However, neither of these combinations teach or suggest the portion of independent claim 7 which recites “the plurality of casters each include a set screw to orient the caster and the caster mounting tubes are each formed to include an opening configured to receive one of the set screws.” The combination of spring plunger 88 and groove 82 permits the rotation of spindle 80 relative to spindle clamp 28 and does not orient spindle 80 relative to spindle clamp 28. The combination of set screw 96 and groove 84, when set screw 96 is tightened, does prevent the rotation of spindle 80 relative to spindle clamp 28, but does not

⁶ Office Action, numbered paragraph 13.

orient spindle 80 relative to spindle clamp 28. For at least this reason, Applicants respectfully submit that independent claim 7 is patentable over the Hall Patent, alone or in combination with Alusick.

For, at least the above reasons, Applicants submit that independent claim 7 is patentable over the Hall Patent, alone or in combination with Alusick. Accordingly, Applicants respectfully submit that claim 7 is in condition for allowance.

The Examiner rejected claims 11, 13, and 14 under 35 U.S.C. 103(a) as being unpatentable over the Hall Patent in view of US Patent No. 4,361,930 to Seesengood (“Seesengood Patent”) and in view of US Patent No. 5,549,072 to Maloney (“Maloney Patent”). The rejected claims include independent claim 11 from which claims 13 and 14 depend.

The Hall Patent, neither alone nor in combination with Seesengood and/or Maloney, discloses, teaches, or suggests the method for attaching a caster having a cylindrical sleeve to a base frame of a bed recited in independent claim 11 as comprising the steps of “... providing a caster having a cylindrical sleeve, a mounting tube having four side walls configured to provide an interior opening having a substantially rectangular cross-sectional shape, ... removing material from the mounting tube such that at least a portion of the interior opening has a generally round cross-sectional shape to receive the cylindrical sleeve of the caster therein ... installing the sleeve of the caster into the interior opening of the mounting tube.”

Neither the Hall Patent, the Seesengood Patent, the Maloney Patent, nor any combination thereof, teaches or suggests at least the steps of “providing ... a mounting tube having four side walls configured to provide an interior opening having a substantially rectangular cross-sectional shape, ... removing material from the mounting tube such that at least a portion of the interior opening has a generally round cross-sectional shape to receive the cylindrical sleeve of the caster therein” For, at least the above reasons, Applicants submit that independent claim 11 is patentable over the Hall Patent, alone or in combination with the Seesengood Patent and/or the Maloney Patent. Accordingly, Applicants respectfully submit that claim 11 is in condition for allowance.

Claims 13 and 14 depend from claim 11 and are patentable over the Hall Patent, alone or in combination with the Seesengood Patent and/or the Maloney Patent, at least for the reasons given above in connection with claim 11 and for the further limitations

of claims 13 and 14. Accordingly, Applicants submit that claims 13 and 14 are in condition for allowance.

Claims 5, 6, 9, 15, 23, and 24 were rejected under 35 U.S.C. §103 over various combinations of references. Claims 5, 6, 9, 15, 23, and 24 each depend from an independent claim believed to be in condition for allowance for the reasons provided above. As such, claims 5, 6, 9, 15, 23, and 24 are patentable over the applied art at least for the limitations of the respective independent claim from which each depends, and for the further dependent limitations recited therein.

G. Final Remarks

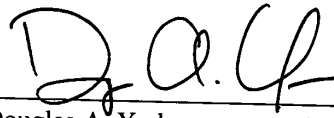
Claims 1-15 and 21-24 are believed to be in condition for allowance. Such allowance is respectfully requested.

If necessary, please consider this a Petition for Extension of Time to effect a timely response. Please charge any additional fees or credits to the account of Bose McKinney & Evans, LLP Deposit Account No. 02-3223.

In the event that there are any questions related to this response or to the application in general, the undersigned would appreciate the opportunity to address those questions directly in a telephone interview to expedite the prosecution of this application for all concerned.

Respectfully submitted,

BOSE McKINNEY & EVANS, LLP

A handwritten signature in dark ink, appearing to read 'D.A. Yerkeson', is written over a horizontal line.

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of claims 13 and 14. Accordingly, Applicants submit that claims 13 and 14 are in condition for allowance.

Claims 5, 6, 9, 15, 23, and 24 were rejected under 35 U.S.C. §103 over various combinations of references. Claims 5, 6, 9, 15, 23, and 24 each depend from an independent claim believed to be in condition for allowance for the reasons provided above. As such, claims 5, 6, 9, 15, 23, and 24 are patentable over the applied art at least for the limitations of the respective independent claim from which each depends, and for the further dependent limitations recited therein.

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Claims 1-15 and 21-24 are believed to be in condition for allowance. Such allowance is respectfully requested.

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